

MEASURES TO CONTROL GRASSHOPPER PEST



Grasshoppers Feeding on Poison—Note That This Is Not the Way to Spread the Bait.

(Prepared by the United States Department of Agriculture.)

The more alfalfa fields there are, the greater will be the plague of grasshoppers unless measures are adopted to control the pest. The grasshopper, of course, was known in America long before alfalfa, but as the country becomes more settled and the waste lands and uncultivated fields in which the insect breeds grow fewer, the pest grows in greater and greater numbers into the places that are left. Since an alfalfa field affords almost ideal conditions for breeding, to plant alfalfa is to invite all the grasshoppers in the vicinity to come and be merry at your expense.

In order to breed freely, grasshoppers require two conditions; first, an undisturbed soil to hatch their eggs, and second, a food supply for their young. The margins of roads and fences, ditch banks, in fact any waste land, will do to hatch the eggs, but with alfalfa or grain at hand for the eating, the young will not stay long in their birthplace. Grasshoppers, it is true, have many natural enemies which will be attracted by the abundance of their prey and thus ultimately afford the farmer some relief. By that time, however, the alfalfa crop is likely to have suffered irreparable damage.

Perhaps the simplest way of fighting the pest, when this is practical, is to destroy the eggs. These are deposited in masses in the late summer and fall, inclosed in kidney-shaped pods, in soil which the grasshopper prefers moderately compact and rather damp, but not actually wet. The young hatch in spring, reach maturity in the summer and die when they in their turn have deposited their eggs. There is only one generation each year. Throughout the late fall and winter, therefore, the farmer has an opportunity to rid himself of the pest by destroying the eggs. Plowing, harrowing, disking or cultivating to a depth of two inches will do this.

Where the nature of the ground or other circumstances make this impracticable, specialists in the department of agriculture recommend the use of poison bait. Resort must be had to the bait early, however, and all waste and uncultivated land gone over thoroughly before the young insects have developed sufficiently to move about freely and feast on the growing crops. For, as has already been said, though the grasshoppers

and the juice of the fruit squeezed into it, then the skin and pulp are chopped up finely and added to the molasses mixture, which is further diluted by the addition of two gallons of water. This is then mixed with the bran and paria green and enough water added to make the whole a stiff dough. This amount of poison is sufficient to treat from five to ten acres. It must be remembered, however, that the fruit is the most important ingredient.

In applying the poison it should be sown broadcast in strips one rod apart before sunrise in the morning. Broadcasting does away with the risk of poisoning stock, poultry or birds and if care is exercised in this respect there need be no fear of loss. On a Vermont farm, for example, several hundred acres of pasture, which were very badly infested with grasshoppers, were treated in this way, and although more than one hundred valuable pure-bred Jersey heifers were grazing on the land throughout the process, no instance of poisoning occurred. On the



On the Trail of Grasshoppers in a Corn Field.

other hand, where the bait is scattered in piles or bunches, there may be serious consequences.

Another method of destroying the insects is the use of the hopperdozer. This consists primarily of a shallow pan, usually made of sheet iron, with a back about one foot high and a front about two inches high. It is filled with water covered with kerosene and drawn over the field on runners that can be made of old wagon tires. The grasshoppers disturbed by its approach will either jump directly into the kerosene and water or against the back of the hopperdozer, which throws them into the poisonous mixture.

Where the conditions are such that the fields can be quickly inundated and the water promptly run off—as is frequently done in rice fields—it is possible to drown all the young grasshoppers if the right moment is selected. As soon as the young begin to run about flooding does but little good, as they easily climb to the upper part of vegetation beyond the reach of the water. On the whole, the use of some such poisoned bait as that already described, will probably be found the most satisfactory way to control the pest. Fuller information in regard to the matter is contained in the recent publication of the United States department of agriculture's farmers' bulletin No. 637, "The Grasshopper Problem and Alfalfa Culture."

SOMETHING BESIDES FEEDING

Good Breeding Methods, Exercise and Proper Management Are Important Essentials.

Success with hogs depends upon a great many things besides feeding. Good breeding methods, exercise and proper management in every respect are necessary. However, if the hog is supplied with the proper amounts of carbohydrates, proteins, fats, water, etc., and is kept free from parasites of all kinds, much will have been done to make the handling of hogs in winter a profitable operation.

Replace Broken Latch.

You'll save time by replacing that broken latch on the gate with a new one.

Proceedings of the

Thirty-Fourth Annual Session of the CALHOUN-CHICKASAW SINGING CONVENTION

Which Convened with Bethlehem Class on Friday and Saturday July 23rd and 24th, 1915.

The Convention was called to order by W. G. Orr, singing one piece. J. C. Cooper offered prayer. The President being absent the convention elected W. G. Orr Chairman to preside over the election of a President pro tem. The Convention elected C. S. McCluney President pro tem by acclamation.

President McCluney sang one piece, after which he appointed the following committees.

R. E. Barton, D. E. Griffin and W. G. Couch on music. S. E. Carter, T. E. Streeter and H. A. Cooper on credentials.

While waiting for committee on music to report, the President invited B. J. Hasting vice president of the Yallobusha Convention to sing three pieces of Music.

J. R. Brooks, J. R. Neal, W. G. Orr, W. D. McNair, J. W. Harrelson, S. R. Loftin, J. T. Valandingham and S. E. Carter all sang two pieces each.

The President called for corresponding Delegates from Conventions. R. E. Barton and B. J. Hasting responded from Yallobusha Convention, and W. F. Hood and G. W. Sutton from New Harmony and all were seated.

Music by R. H. Couch, W. J. Griffin, M. M. McQuary, N. A. Jennings, R. E. Barton, Sam Simpson, Smith Whittle, Marshal Orr sang two pieces each.

Convention adjourned an hour and half for refreshments.

FRIDAY AFTERNOON SESSION.

Convention was called to order by President.

C. S. McCluney sang one piece and A. C. Ellenberg sang two pieces.

The Convention proceeded to elect officers for the ensuing year which resulted in the election of E. J. Hawkins President; C. S. McCluney, Vice-President; N. A. Jennings, Secretary.

E. J. Hawkins sang one piece and Lawrence Darby two pieces.

By request C. S. McCluney sang "Spring," W. E. Hood, H. W. Murphree, C. C. Henley, sang two pieces each.

Jack and J. B. Hawkins sang Easter anthem and Christian song.

Music by Virgil Duncan and G. W. Sutton two pieces each.

Forest Kilgore age eleven years sang two pieces. Convention took a recess of fifteen minutes.

The Convention reassembled by the President singing two songs.

Music by Charley Cooper, Lawrence Harrington, and C. H. Harrington two pieces each.

D. E. Griffin sang three pieces. The "True Loving Jesus" being sang by request.

S. E. Davis and J. W. Allen sang two pieces each.

D. R. Ross, sang one piece and convention adjourned to meet at 9 o'clock Saturday morning.

SATURDAY MORNING SESSION.

The Convention was called to order by Vice-President C. S. McCluney.

J. R. Brooks, sang one piece and offered prayer; Vice-President sang one piece, T. G. Baird, J. W. Darby sang two pieces each.

B. F. Darby sang one piece, C. C. Dendy, R. D. Taylor, J. T. Hannaford, G. B. McGehee, W. G. Couch, F. O. Martin and Math Duncan all sang two piece each.

The Convention took a recess of fifteen minutes. The Convention reassembled by President singing one piece.

The following leaders all sang two pieces each.

L. Berry, Prof. G. W. Russell, Penson Harden, Albert Wilson, S. T. Hawkins, Mack Flemings and J. T. Dalton.

The Convention adjourned an hour and half for refreshments.

SATURDAY AFTERNOON SESSION.

The Convention was called to order by the President singing two pieces.

Music by Joe Chatman, George Sutton and B. J. Hasting two pieces each.

Committee on credentials made their final report and were discharged, (see statistical table motion carried for same and Jack Hawkins to sing Easter anthems).

J. R. Brooks sang two pieces by request. Sam Hawkins sang Pilgrims Farewell.

J. R. Neal and W. D. McNair sang two pieces each. The Convention took a recess of ten minutes.

The Convention reassembled by the President singing two pieces.

The president appointed H. W. Murphree, Sam Hawkins and Smith Whittle as corresponding delegates to the Yallobusha Convention, and J. R. Neal, Jack Hawkins,

M. M. McQuary to the New Harmony Convention.

A Petition to the Hon. J. L. White of Atlanta, Ga., Publisher of the Convention's Text Book, came before the Convention advocating the character or seven shape note system, without change of staff or music, which was very liberally discussed and adopted by a majority of five votes.

Music by C. S. McCluney two pieces.

Resolution of thanks adopted. President E. J. Hawkins sang one piece.

On motion the convention adjourned to meet with new Prospect class, six miles west of New Houlika and three miles north of Thorn, Friday and Saturday before the fourth Friday in July 1916.

E. J. HAWKINS, President
N. A. JENNINGS, Secretary

Clean Up and Paint Up to Reduce Fire Hazard

THE Indiana State Fire Marshal declares that every city and town should conduct "Clean Up and Paint Up" campaigns, to reduce fire hazards, if for no other purpose. And he declares that the application of paint to wooden buildings is quite as important a fire preventative as is the removal of rubbish from garrets and areaways. He is therefore strongly urging "Clean Up and Paint Up" weeks for every city in the state.

"Inspections in the larger cities," says the Indiana Fire Marshal, "show that about 10 per cent of all buildings and premises within business districts are being endangered by rubbish. Though the residence districts have not been inspected, the proportion, no doubt, is just as large. One of the most effective fire preventatives in clean and tidy premises, both in business houses and in dwellings."

The Fire Marshal is advising everywhere the painting of the shingle roof. "Paint not only makes shingles more durable," says the Fire Marshal, "but it acts as a fire preventative as well. By covering and protecting the fuzzy splinters that form on the outer surface of shingles, the paint greatly reduces the likelihood of fire from falling sparks."

Scores of Indiana cities are following the Fire Marshal's advice this year. A "Clean Up and Paint Up" campaign will reduce fire losses in Outtown.

Real Campaign Is Taking Place of Old Time "Clean Up"

"ANNUAL BATH" FOR TOWNS TABOOED.

Five Thousand Communities Will This Year Join "Clean Up and Paint Up" Movement.

MORE than 5,000 cities and towns will this year participate in "opening weeks" in the National Clean Up and Paint Up campaign, according to Allen W. Clark, chairman of the National "Clean Up and Paint Up" Campaign Bureau, St. Louis. Many of these communities, Clark declares, are thus breaking away from the old-established "clean up" or "annual bath" idea and are striving to make their improvement programs continuous performances.

Files in the bureau's offices, which indicate that the organization has in reality become a national clearing house for the dissemination of community betterment ideas, show that last year more than 2,000 cities and towns made an effort to "clean up and paint up." "This year," commented Chairman Clark, "it looks as though we would co-operate with more than 5,000 communities, in each of which some live civic leader is trying to improve living conditions. Though a majority of these campaigns will start with an 'opening week,' a definite program of activity, we know that the bureau's success has been chiefly due to the fact that we try to get away from the old-fashioned 'annual clean up' idea that has become odious to many civic leaders and an annual joke in many cities. The plans of the bureau call for continuous campaigns that bring permanent results and help form worth while civic habits."

The Work to Be Done.

The work of the bureau this year is more comprehensive than ever before. Everything that will beautify, preserve, improve sanitation, reduce fire risks, and better health conditions has been carefully provided for. Among the things which local "Clean Up and Paint Up" campaigners are doing this year are: Cleaning the streets and alleys, front yards, back yards, cellars, stables, attics; the removal of ashes and rubbish; cleaning up vacant lots of rubbish and weeds; eliminating breeding places of flies and mosquitoes; planting and care of trees, hedges and flowers; and the liberal use of paint on everything that needs it.

It is this constructive, permanent nature of the improvements effected that has won the endorsement of national leaders in every branch of civic uplift work. Among those serving this year on the National Bureau's

Clean Up and Paint Up—Get Behind the Brush

SPRINGTIME has at last come to stay, to prepare all nature for summer's flowers and the autumn's harvest.

Even the abject stir about their wretched premises, plant morning glories and try their best to fix up the leaning pickets left from the kindling needs of the later frosty mornings. Good housewives tie towels about their heads, gird up their narrow skirts and chase the dust of winter from their rooms. The laziest pick and trifle with their belongings to fix themselves better to face the changing seasons.

"Clean up!" is the phrase. "Why not enlarge it? Why not 'paint up'?"

And if "paint up," why not do it so it will LAST and PAY?

Painting is another "art preservative." Rightly done, it saves repair, adds to length of property-life, increases property-attractiveness, brings to the tenant's lips the pleased smile, to the righteous landlord the wholesome feeling of duty well performed.

Between ourselves, there's room for lots on lots of paint here in Outtown. Well applied, in colors judiciously selected, it would conceal a multitude of architectural and sanitary sins from the discerning eyes of tourists passing this way and from ourselves.

Look over your OWN house, or home, or business structure.

Don't YOU agree? Try our prescription—"Clean Up and Paint Up."

advisory committee are:

Mrs. Clarence Baxter, Kirksville, Mo., chairman of the Women's Committee of the National Bureau, is also vice chairman of the civic department of the General Federation of Women's Clubs, and chairman of the civic and health department of the Missouri Federation of Women's Clubs. Dr. S. J. Crumline, Topeka, Kan., president of the Association of State and Province Health Officers of North America. H. S. Buttenheim, New York, editor of "The American City." Clinton R. Woodruff, Philadelphia, secretary National Municipal League and editor of the "National Municipal Review." Mrs. Philip North Moore, St. Louis, ex-president National Federation of Women's Clubs. William Woodhead, San Francisco, president of the Associated Advertising Clubs of the World. P. S. Riddale, Washington, D. C., executive secretary American Forestry Association. Richard B. Watrous, Washington, D. C., secretary American Civic Association. Mrs. Geo. Zimmerman, Fremont, O., chairman of the civic department, General Federation of Women's Clubs.

Paint and Self-Respect.

The one most important factor in spreading the gospel of cleanliness, thrift and civic pride, which the Bureau is trying to do, is the work of newspaper editors throughout the country, asserts Chairman Clark. For instance, here is what Paul Brown, editor of The St. Louis Republic, has to say of the movement: "Thousands of American cities and towns have taken up the National 'Clean Up and Paint Up' campaign that originated in St. Louis three seasons ago. It has been endorsed by thousands of civic, commercial and women's organizations all over the nation. The cities that have made themselves a part of the movement are cleaner and better cities because of it. The Republic aided in launching the initial campaign and is glad to know that the Federation of Women's Clubs is planning a general St. Louis campaign for this spring. This will aid in making 'St. Louis the Healthiest City,' for paint is the great preservative and a powerful aid in sanitation. Add to beauty and economy the fact that paint has a sanitary value, and the arguments apply with added force to the big cities. Naturally the paint dealer profits by such campaigns. None but the pessimist will object to this. He gives value received and more. The house that is painted is the better for it. A neighborhood that has cleaned up and painted up is a better one in which to live. Paint makes for self-respect and justifiable pride."

In the office of the National "Clean Up and Paint Up" Campaign Bureau hangs a room-size wall map, with every state dotted by red stars denoting cities conducting campaigns last year. And so it is true that civic leaders in thousands of towns are working to "get their town on the map" this year.



Corn Eaten by Grasshoppers.

may breed in places where they can do no harm, they will not spend their lives there.

A cheap and effective bait is made by mixing 25 pounds of wheat bran, one pound of paris green, two quarts of cheap molasses or sirup, and three oranges or lemons. The bran and paris green are first mixed together in an ordinary wash tub or any other convenient receptacle. The molasses or sirup is placed in a separate vessel